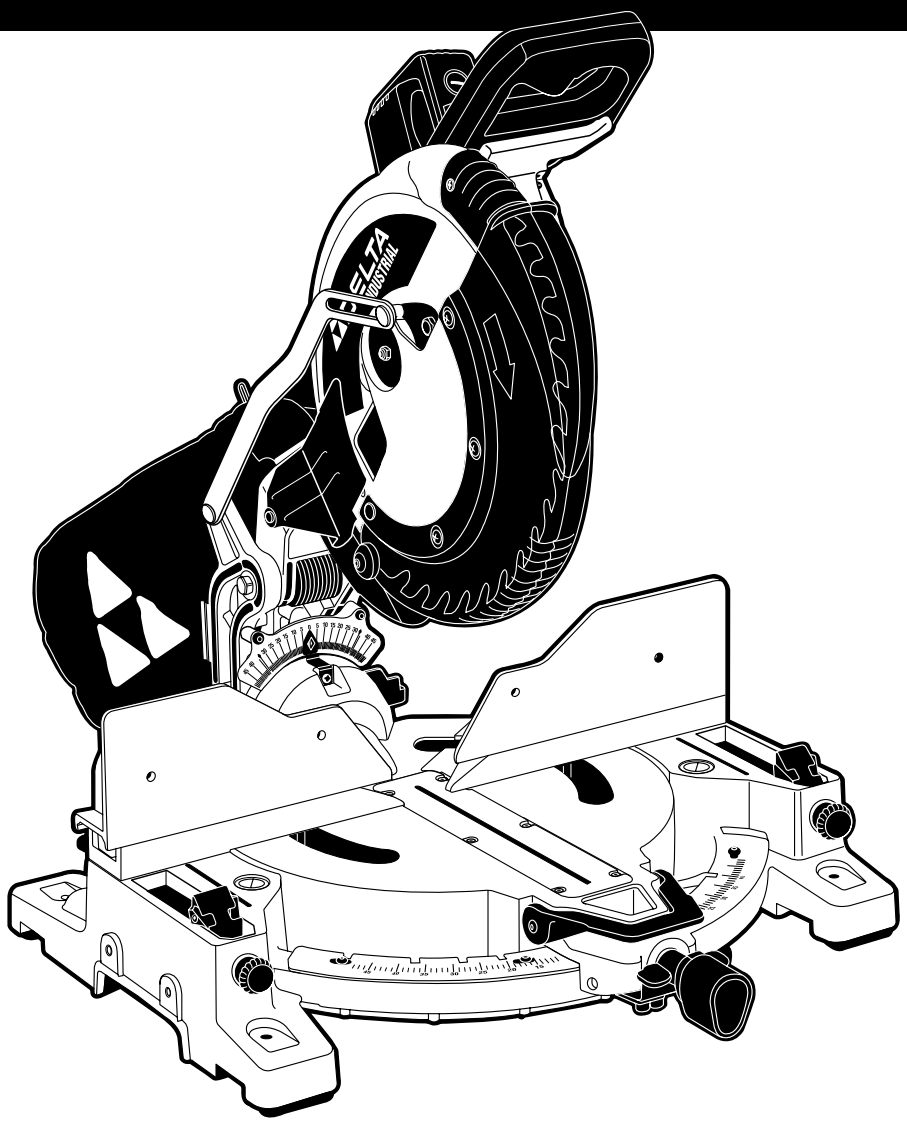
36-422L

DELTA®

12" Dual Bevel Laser Miter Saw

Sierra ingletadora con láser de doble bisel de 305 mm (12 pulg)

Scie coulissante à onglets à système laser, à plan conique double 305 mm (12 po)



Instruction Manual
Manuel d'Utilisation
Manual de Instrucciones

A16275 - 01-13-06

www.deltamachinery.com
(800) 223-7278 - US
(800) 463-3582 - CANADA

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IMPORTANT SAFETY INSTRUCTIONS

⚠WARNING Read and understand all warnings and operating instructions before using any tool or equipment. When using tools or equipment, basic safety precautions should always be followed to reduce the risk of personal injury. Improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. Delta Machinery strongly recommends that this product NOT be modified and/or used for any application other than for which it was designed.

If you have any questions relative to its application DO NOT use the product until you have contacted Delta Machinery and we have advised you.

Online contact form at **www.deltamachinery.com**

Postal Mail: Technical Service Manager
Delta Machinery
4825 Highway 45 North
Jackson, TN 38305
(IN CANADA: 125 Mural St. Suite 300, Richmond Hill, ON, L4B 1M4)

Information regarding the safe and proper operation of this tool is available from the following sources:

Power Tool Institute
1300 Sumner Avenue, Cleveland, OH 44115-2851
www.powertoolinstitute.org

National Safety Council
1121 Spring Lake Drive, Itasca, IL 60143-3201

American National Standards Institute, 25 West 43rd Street, 4 floor, New York, NY 10036 **www.ansi.org**
ANSI 01.1Safety Requirements for Woodworking Machines, and

the U.S. Department of Labor regulations **www.osha.gov**

SAVE THESE INSTRUCTIONS!

SAFETY GUIDELINES - DEFINITIONS

It is important for you to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.

⚠DANGER Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

CALIFORNIA PROPOSITION 65

⚠WARNING **SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES** contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

· lead from lead-based paints,
· crystalline silica from bricks and cement and other masonry products, and
· arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, always wear **NIOSH/OSHA** approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES

⚠WARNING Failure to follow these rules may result in serious personal injury.

1. **FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
2. **WEAR EYE AND HEARING PROTECTION. ALWAYS USE SAFETY GLASSES.** Everyday eyeglasses are NOT safety glasses. USE CERTIFIED SAFETY EQUIPMENT. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
3. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip protective footwear is recommended. Wear protective hair covering to contain long hair.
4. **DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
5. **MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
6. **CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced with Delta or factory authorized replacement parts.** Damaged parts can cause further damage to the machine and/or injury.
7. **KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
8. **KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
9. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury. Do not touch the plug's metal prongs when unplugging or plugging in the cord.
10. **USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
11. **REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
12. **USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
13. **USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
14. **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
15. **SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
16. **FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at high speed.
17. **DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
18. **DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
19. **NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
20. **NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
21. **TURN THE MACHINE "OFF", AND DISCONNECT THE MACHINE FROM THE POWER SOURCE** before installing or removing accessories, changing cutters, adjusting or changing set-ups. When making repairs, be sure to lock the start switch in the "OFF" position. An accidental start-up can cause injury.
22. **MAKE YOUR WORKSHOP CHILDPROOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
23. **STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
24. **⚠WARNING USE OF THIS TOOL CAN GENERATE AND DISBURSE DUST OR OTHER AIRBORNE PARTICLES, INCLUDING WOOD DUST, CRYSTALLINE SILICA DUST AND ASBESTOS DUST.** Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

ADDITIONAL SPECIFIC SAFETY RULES

⚠WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

1. **DO NOT OPERATE THIS MACHINE** until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
2. **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections to prevent shock or electrocution.
4. **DO NOT OPERATE ON ANYTHING OTHER THAN THE DESIGNATED VOLTAGE** for the saw.
5. **SECURE THE MACHINE TO A STABLE SUPPORTING SURFACE.** Vibration can possibly cause the machine to slide, walk, or tip over, causing serious injury.
6. **USE ONLY CROSSCUT SAW BLADES.** Use only zero-degree or negative hook angles when using carbide-tipped blades. Do not use blades with deep gullets. These can deflect and contact the guard, and can cause damage to the machine and/or serious injury.
7. **USE ONLY BLADES OF THE CORRECT SIZE AND TYPE** specified for this tool to prevent damage to the machine and/or serious injury.
8. **MAKE CERTAIN BLADE ROTATES IN CORRECT DIRECTION** and that the teeth at the bottom of the blade point to the rear of the saw.
9. **USE BLADE GUARD AT ALL TIMES.** Don't spray any lubricants or cleaners (particularly spray or aerosol) in the vicinity of the plastic guard. The polycarbonate material sued in the guard is subject to attack by certain chemicals.
10. **USE A SHARP BLADE.** Check the blade to see if it runs true and is free from vibration. A dull blade or a vibrating blade can cause damage to the machine and/or serious injury.
11. **DON'T WEDGE ANYTHING AGAINST THE FAN** to hold the motor shaft.
12. **DON'T USE ABRASIVE WHEELS.** The excessive heat and abrasive particles generated by them will damage the saw.
13. **INSPECT BLADE FOR CRACKS** or other damage prior to operation. A cracked or damaged blade can come apart and pieces can be thrown at high speeds, causing serious injury. Replace cracked or damaged blades immediately.
14. **CLEAN THE BLADE AND BLADE FLANGES** prior to operation. Cleaning the blade and flanges allows you to check for any damage to the blade or flanges. A cracked or damaged blade or flange can come apart and pieces can be thrown at high speeds, causing serious injury.
15. **ALWAYS USE THE KERF PLATE AND REPLACE THIS PLATE WHEN DAMAGED.** Small chip accumulation under the saw may interfere with the saw blade or may cuase instability of workpiece when cutting.
16. **USE ONLY BLADE FLANGES** specified for this tool to prevent damage to the machine and/or serious injury.
17. **CLEAR THE AREA OF FLAMMABLE LIQUIDS** and/or gas prior to operation. Sparks can occur that would ignite the liquids and cause a fire or an explosion.
18. **CLEAN THE MOTOR AIR SLOTS** of chips and sawdust. Clogged motor air slots can cause the machine to overheat, damaging the machine and possibly causing a short which could cause serious injury.
19. **TIGHTEN THE TABLE CLAMP HANDLE** and any other clamps prior to operation. Loose clamps can cause parts or the workpiece to be thrown at high speeds.
20. **NEVER START THE TOOL** with the blade against the workpiece. The workpiece can be thrown, causing serious injury.
21. **KEEP ARMS, HANDS, AND FINGERS** away from the blade to prevent severe cuts. Clamp all workpieces that would cause your hand to be in the "Table Hazard Zone" (within the red lines).
22. **DON'T PLACE HANDS IN THE BLADE AREA** when the saw is connected to a power source.
23. **DON'T REACH UNDERNEATH THE SAW** unless it is unplugged or turned off. The saw blade is exposed on the underside of the saw.
24. **ALLOW THE MOTOR TO COME TO FULL SPEED** prior to starting cut. Starting the cut too soon can cause damage to the machine or blade and/or serious injury.
25. **NEVER REACH AROUND** or behind the saw blade. A moving blade can cause serious injury.
26. **NEVER CUT FERROUS METALS** or masonry. Either of these can cause the carbide tips to fly off the blade at high speeds causing serious injury.
27. **NEVER CUT SMALL PIECES.** Cutting small pieces can cause your hand to move into the blade, resulting in serious injury.
28. **NEVER LOCK THE SWITCH** in the "ON" position. Setting up the next cut could cause your hand to move into the blade, resulting in severe injury.
29. **NEVER APPLY LUBRICANT** to a running blade. Applying lubricant could cause your hand to move into the blade, resulting in serious injury.
30. **DO NOT PERFORM FREE-HAND OPERATIONS**. Hold the work firmly against the fence and table. Free-hand operations on a miter saw could cause the workpiece to be thrown at high speeds, causing serious injury. Use clamps to hold the work when possible.
31. **TURN OFF THE MACHINE** and allow the blade to come to a complete stop prior to cleaning the blade area or removing debris in the path of the blade. A moving blade can cause serious injury.
32. **PROPERLY SUPPORT LONG OR WIDE WORK-PIECES.** Loss of control of the workpiece can cause injury.
33. **NEVER PERFORM LAYOUT, ASSEMBLY, OR SET-UP WORK** on the table/work area when the machine is running. A sudden slip could cause a hand to move into the blade. Severe injury can result.
34. **DON'T ALLOW ANYONE** to stand behind the saw.
35. **TURN THE MACHINE "OFF",** disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE "OFF" POSITION** to prevent unauthorized use. Someone else might accidentally start the machine and cause injury to themselves.
36. **BEFORE OPERATING THE SAW,** check and securely lock the bevel, miter, and sliding fence adjustments.
37. **ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor regulations.

SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.

ADDITIONAL SAFETY RULES FOR THE LASER

⚠DANGER **LASER LIGHT - DO NOT STARE INTO BEAM, APERTURE,** or into a reflection from a mirror-like surface.

⚠DANGER **DO NOT USE OPTICAL TOOLS SUCH AS A TELESCOPE OR TRANSIT TO VIEW THE LASER BEAM.** Serious eye injury could result.

⚠DANGER **DO NOT OPERATE THE LASER AROUND CHILDREN** or allow children to operate the laser. Serious eye injury may result.

⚠WARNING **STORE IDLE LASER OUT OF REACH OF CHILDREN AND OTHER UNTRAINED PERSONS.** Lasers are dangerous in the hands ofuntrained users.

⚠WARNING **AVOID EXPOSURE - LASER LIGHT IS EMITTED FROM FRONT GUARD APERTURE.**

⚠WARNING **DO NOT DISASSEMBLE LASER MODULE.** The laser is a CLASS IIIa LASER PRODUCT that can emit laser power up to 5mW MAX at 650 nm, which could result in exposure with the module disassembled. The laser unit complies with 21 CFR 1040.10 and 1040.11.

⚠WARNING **USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**

⚠WARNING **TURN THE LASER OFF WHEN IT IS NOT IN USE.** Leaving the laser on increases the risk of staring into the laser beam.

⚠WARNING **DO NOT REMOVE OR DEFACE WARNING LABELS.**

⚠WARNING **DO NOT OPERATE THE LASER IN EXPLOSIVE ATMOSPHERES**, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.

SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.

POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine to the power line, make sure the switch (s) is in the "OFF" position and be sure that the electric current is of the same characteristics as indicated on the machine. All line connections should make good contact. Running on low voltage will damage the machine.

⚠DANGER **DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.**

MOTOR SPECIFICATIONS

Your machine is wired for 120 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

DOUBLE INSULATED TOOLS

Double insulated tools are constructed throughout with two separate layers of electrical insulation or one double thickness of insulation between you and the tool's electrical system. Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

NOTE: Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from possible electrical insulation failure within the tool.

⚠CAUTION **WHEN SERVICING USE ONLY IDENTICAL REPLACEMENT PARTS. REPAIR OR REPLACE DAMAGED CORDS.**

Polarized plugs (one blade is wider than the other) are used on equipment to reduce risk of electric shock. When provided, this plug will fit in the polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact qualified electrician to install the proper outlet. Do not change the plug in any way.

EXTENSION CORDS

⚠WARNING Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table in Fig. D-1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

MINIMUM GAUGE EXTENSION CORD

RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES

Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	120	up to 25	18 AWG
0-6	120	25-50	16 AWG
0-6	120	50-100	16 AWG
0-6	120	100-150	14 AWG
6-10	120	up to 25	18 AWG
6-10	120	25-50	16 AWG
6-10	120	50-100	14 AWG
6-10	120	100-150	12 AWG
10-12	120	up to 25	16 AWG
10-12	120	25-50	16 AWG
10-12	120	50-100	14 AWG
10-12	120	100-150	12 AWG
12-16	120	up to 25	14 AWG
12-16	120	25-50	12 AWG
12-16	120	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. D 1

FUNCTIONAL DESCRIPTION

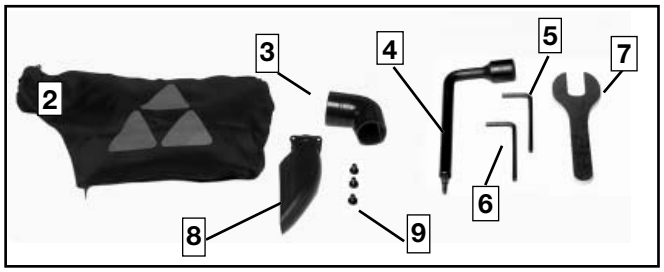
FOREWORD

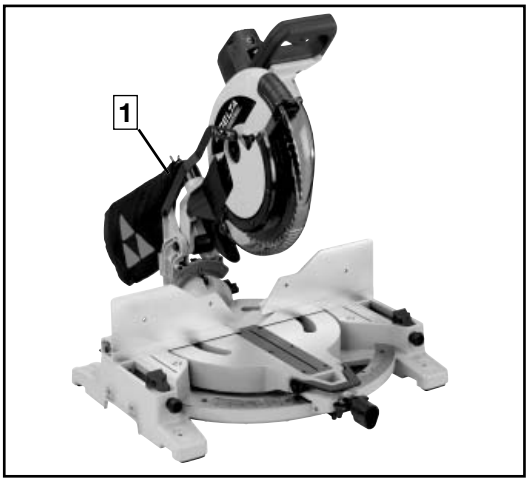
Delta Model 36-422L is a high capacity 12" dual bevel compound miter saw equipped with a laser guide and designed to cut wood and non-ferrous metals. This machine is supplied with design features that increase the cutting capacity. Also, this model includes built in stops for cutting crown molding. This machine can cut 6" baseboard moulding mounted vertically, crosscut 2" x 10" dimensional lumber at 90 degrees, miter 2" x 6" dimensional lumber at 45° both left and right, and bevel 2" x 10" dimensional lumber left and right at 45°. It has positive miter stops at 0°, 15°, 22.5°, 31.62, and 45° both left and right, and bevel stops at 0°, 33.9°, and 45° left.

NOTICE: The photo on the manual cover illustrates the current production model. All other illustrations contained in the manual are representative only and may not depict the actual color, labeling or accessories and are intended to illustrate technique only.

CARTON CONTENTS

1 - Miter Saw
2 - Dust Bag
3 - Dust Spout
4 - Wrench
5 - 2mm Hex Wrench
6 - 1/8 Hex Wrench
7 - Open End 7/16" Wrench
8 - Dust Shroud
9 - M4 Pan Head Screws





UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container(s). Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax. Place the machine on a firm, level surface with proper support of the workpiece. To release the head and move it to the operating position, see **"MOVING CUTTINGHEAD TO THE UP POSITION"** and **"MOVING TABLE TO THE 0° CUT-OFF POSITION"** sections in this manual.

ASSEMBLY

⚠WARNING FOR YOUR OWN SAFETY, DO NOT CONNECT THE MACHINE TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED AND YOU READ AND UNDERSTAND THE ENTIRE INSTRUCTION MANUAL.

ASSEMBLY TOOLS REQUIRED

Wrench (Supplied)

2mm Hex Wrench (Supplied)

Open-end 7/16" Wrench (Supplied)

ASSEMBLY TIME ESTIMATE

Assembly for this machine takes less than 30 minutes.

ATTACHING THE DUST BAG

1. Attach the dust spout (A) Fig. 3 to the dust port (B).
2. Depress the spring clips (C) Fig. 3 of dust bag (D) and clip the dust bag (D) over the rib of the dust spout (A).

MOVING THE CUTTINGHEAD TO THE UP POSITION

Push down on the handle (B) Fig. 4. Pull out the cutting-head lockpin and move the cuttinghead (B) to the up position.

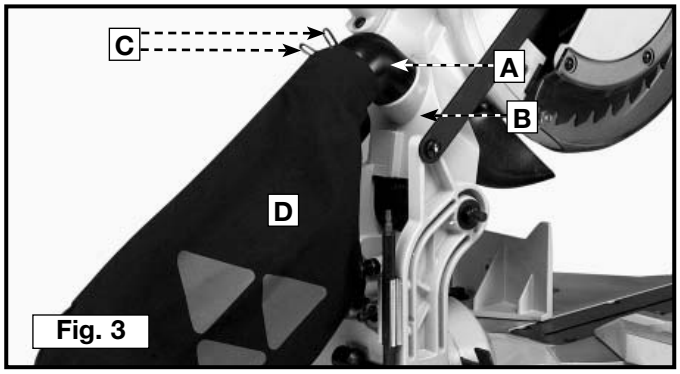


Fig. 3

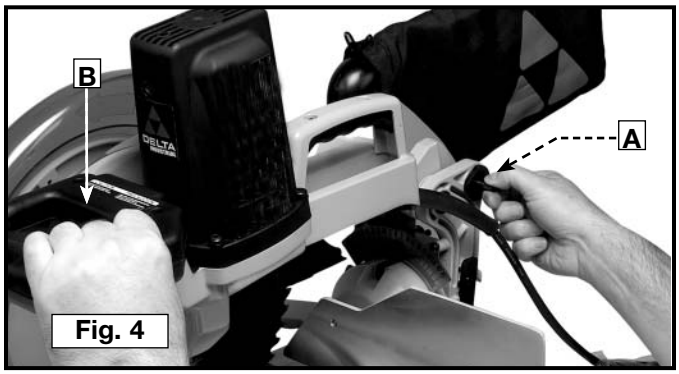


Fig. 4

NOTE: The tension of the cuttinghead return spring has been adjusted at the factory so that the cuttinghead returns to the "up" position after a cut has been made. If the head fails to return properly, please take the tool to your nearest authorized service center for service.

ATTACHING THE DUST SHROUD

With the cuttinghead in the up position, attach the dust shroud (A) Fig. 4A to the port (B) with three screws using the supplied wrench.

NOTE: Installation is easier if you place a screw on the wrench and then place it in the hole.

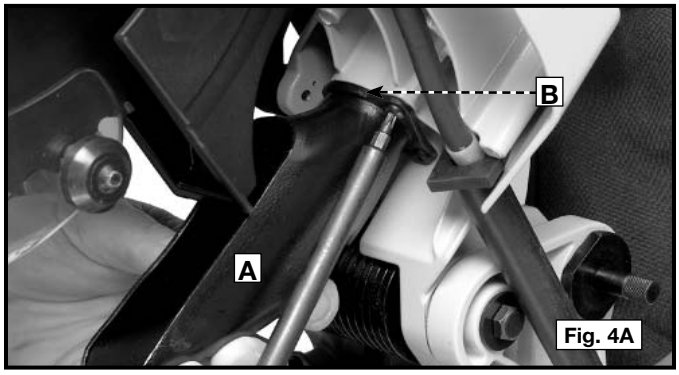


Fig. 4A

MOVING THE TABLE TO THE 0° CUT-OFF POSITION

1. Rotate the locking knob (A) Fig. 5 counter-clockwise as far as it will go. Depress the lever (B) and rotate the table (C) to the 0° straight cut-off position, release the lever (B), and tighten the locking knob (A).

   NOTE: This saw incorporates a new slotted plate design feature (D) Fig. 6 with location adjustment screws (E) for fine-adjusting the cutting angle.
2. For proper operation and adjustment of the table, refer to sections, **"ROTATING TABLE FOR MITER CUTTING",** and **"ADJUSTING SLIDING FIT BETWEEN MOVABLE TABLE AND BASE.**

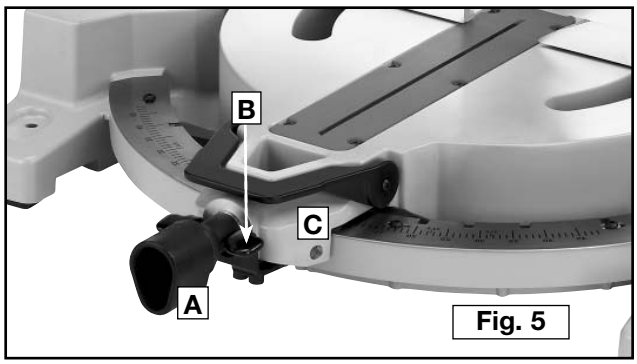


Fig. 5

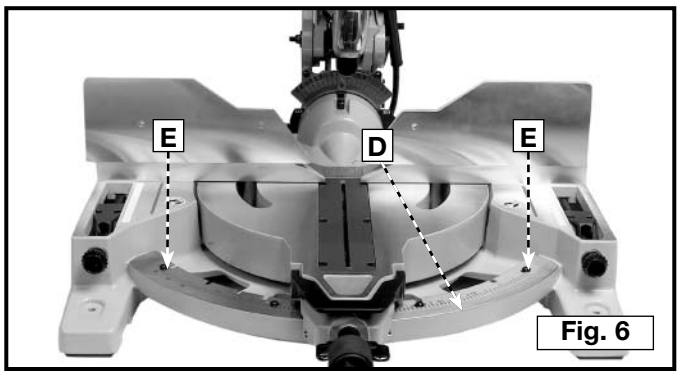


Fig. 6

FENCE OPERATION

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

The saw is equipped with two fence sections. Both fence sections, one is shown at (A) Fig. 7, are adjustable and should be placed as close to the blade as possible for all bevel or straight cuts to provide adequate support and for an accurate cut.

To adjust, place fence piece (A) into guide groove (B) and move it to the desired location. Insert knob (C) to lock in place.

NOTE: The guide groove of the fence can become clogged with sawdust. Be sure to clean it out periodically.

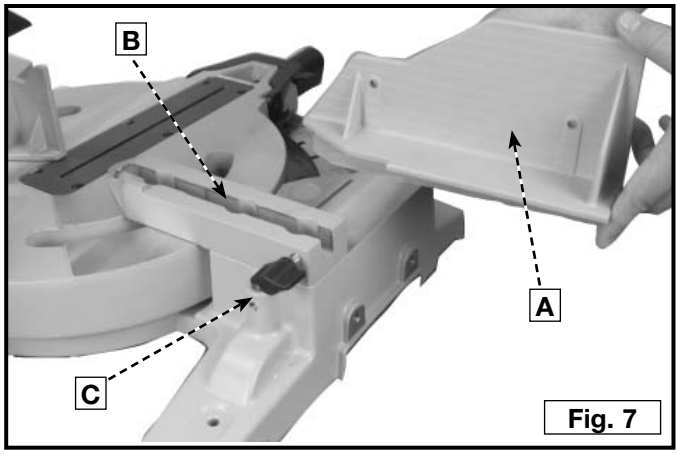


Fig. 7

⚠WARNING MAKE SURE THAT THE FENCE IS CLEAR OF THE GUARD AND BLADE BEFORE OPERATING THE SAW.

FASTENING THE MACHINE TO A SUPPORTING SURFACE

Before operating your compound miter saw, firmly mount it to a workbench or other supporting surface. Four holes (two of which are shown at (A) Fig. 8) are provided for fastening the saw to a supporting surface.

When frequently moving the saw from place to place, mount the saw to a 3/4" piece of plywood. The saw can then be easily moved from place to place and the plywood can be clamped to the supporting surface using "C" clamps.

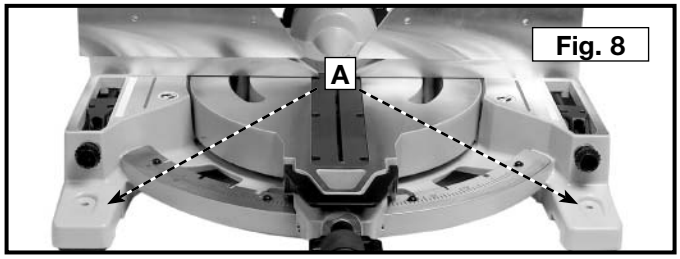


Fig. 8

OPERATION

OPERATIONAL CONTROLS AND ADJUSTMENTS

STARTING AND STOPPING THE MACHINE

To start the machine, depress switch trigger (A) Fig. 9. To stop the machine, release the switch trigger.

This saw is equipped with an automatic electric blade brake. As soon as the switch trigger (A) Fig. 9 is released, the electric brake is activated and stops the blade.

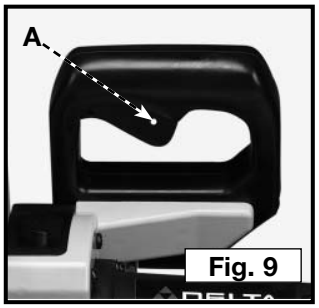


Fig. 9

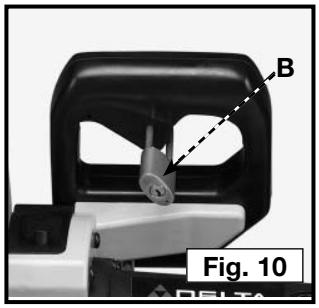


Fig. 10

⚠WARNING A turning saw blade can be dangerous. After completing the cut, release the switch trigger (A) Fig. 9 to activate blade brake. Keep cuttinghead down until the blade has come to a complete stop.

⚠WARNING The torque developed during braking may loosen the arbor screw. The arbor screw should be checked periodically and tightened if necessary.

LOCKING THE SWITCH IN THE "OFF" POSITION

IMPORTANT: When the machine is not in use, the switch should be locked in the "OFF" position to prevent unauthorized use, using a padlock (B) Fig. 10 with a 3/16" diameter shackle.

⚠WARNING In the event of a power outage, always lock switch in "OFF" position until the main power is restored.

ROTATING THE TABLE FOR MITER CUTTING

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE

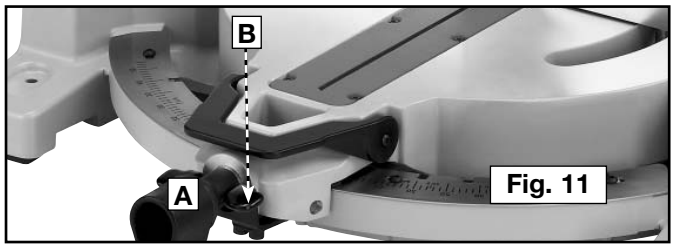


Fig. 11

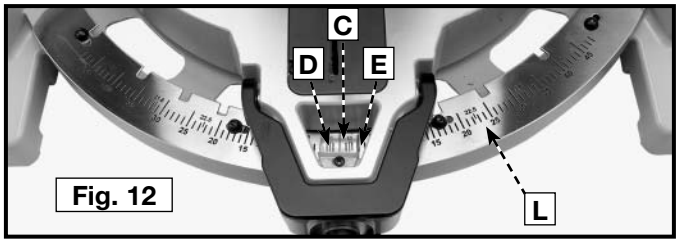


Fig. 12

1. The compound miter saw will cut any angle from a straight 0° cut to 48° right and left. To adjust, place locking knob (A) in the unlocked position as shown in Fig. 11. Then push down on lock lever (B) while turning the table to the desired position. After moving the saw, place knob (A) in the locked position by twisting it clockwise until it stops.
2. This machine is equipped with positive stops at the 0° cut-off position and at the 15°, 22.5°, 31.62°, and 45° left and right positions.
3. The center line (C) Fig. 12 on the cursor indicates the actual angle of cut. Each scale line (L) represents 1°. When the center line (C) is moved from one line to the next on the scale, the angle of the cut is changed by 1°.
4. The pointer is provided with two additional lines (D) and (E) Fig. 12. This allows movement of the control arm by exactly 1/2°. For example, assume that the center line (C) is pointing to the 10° mark on the scale, as indicated, and the desired angle of cut is 1/2° to the right. Move the control arm until the right line (E) lines up with the next line on the scale. The angle of cut will then be changed 1/2° to the right. If you change the angle of cut 1/2° to the left, use the left line (D) in the same manner.

ADJUSTING FIT BETWEEN TABLE AND BASE

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE

To adjust the sliding fit between the movable table and the base, turn the nut (A) Fig. 13 clockwise to tighten the fit (counter-clockwise to loosen the fit). This adjustment should not be so tight that it restricts the rotating movement of the table, or so loose that it affects the accuracy of the saw.

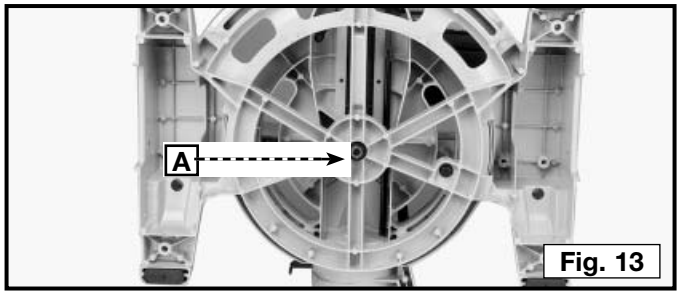


Fig. 13

ADJUSTING THE FENCE 90° TO THE BLADE

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE

1. Slide table into 0 degrees miter detent as shown in Fig. 14. Do not lock the miter knob. If the miter cursor needs adjusting, loosen screw (G) and slide cursor (F) so that the red line shows 0 degrees.
2. Raise blade and make sure left fence is parallel with the right. To do this, place one end of a framing square (A) Fig. 15 against the front of the right fence (B) and the other end against the left fence base (C). Use the supplied wrench to loosen left fence base mounting screws (D) and adjust the left fence base parallel to the right fence.
3. Lower the blade. Place a framing square (E) Fig 16 on the table against the blade (A) and right fence (D). If the body of the blade is not perpendicular to the fence then the entire miter scale (J) Fig. 14 can also be slightly adjusted by loosening four screws, one of which is shown at (H) Fig. 14 and mitering the saw into the correct position. It is important that any adjustment occur with the miter unlocked, and with the saw in the zero miter detent. Retighten the four screws once the blade has been adjusted perpendicular to the left fence.
4. Verify the saw is square by placing framing square on the left fence and the body of the blade. If this is not square, return to step 1.

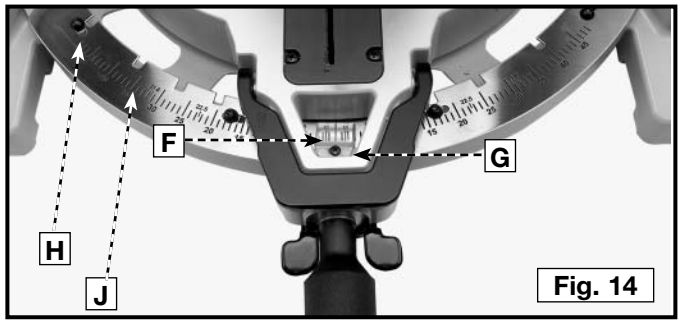


Fig. 14

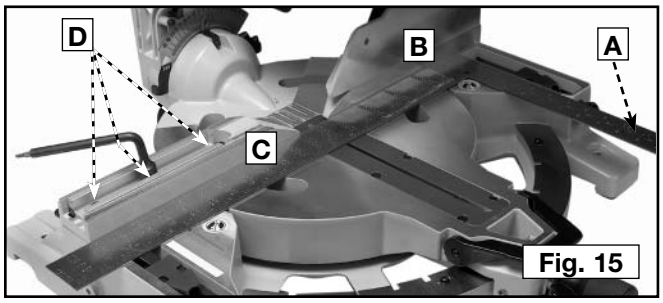


Fig. 15

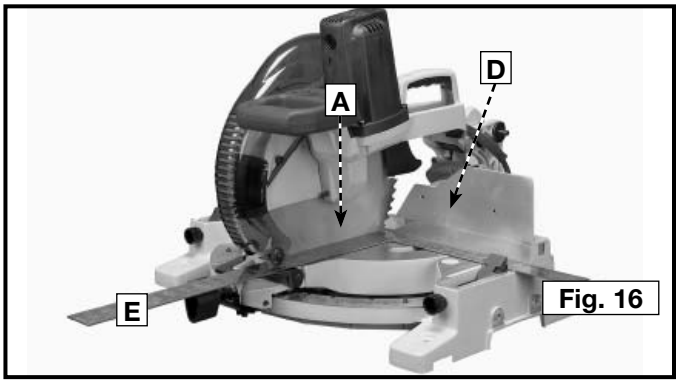


Fig. 16

TABLE HAZARD ZONE

⚠WARNING THE AREA INSIDE THE TWO RED LINES (A) FIG. 17 ON THE TABLE IS DESIGNATED AS A HAZARD ZONE. NEVER PLACE YOUR HAND(S) INSIDE THE "TABLE HAZARD ZONE" (WITHIN THE RED LINES) WHILE THE TOOL IS BEING OPERATED. CLAMP ALL WORKPIECES WHICH WOULD CAUSE YOUR HAND(S) TO BE WITHIN SIX INCHES OF THE SAW BLADE.

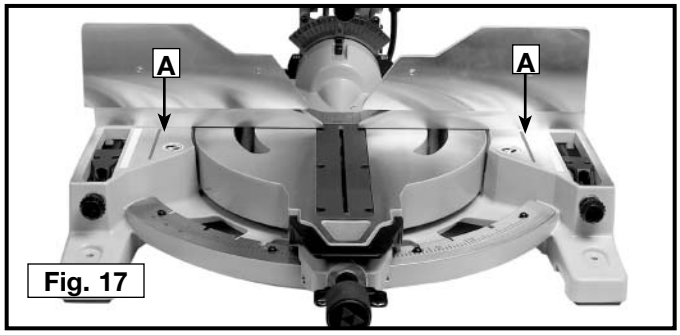


Fig. 17

TILTING THE CUTTINGHEAD FOR BEVEL CUTTING

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

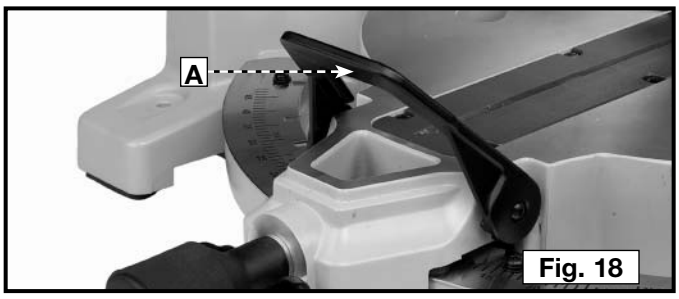


Fig. 18

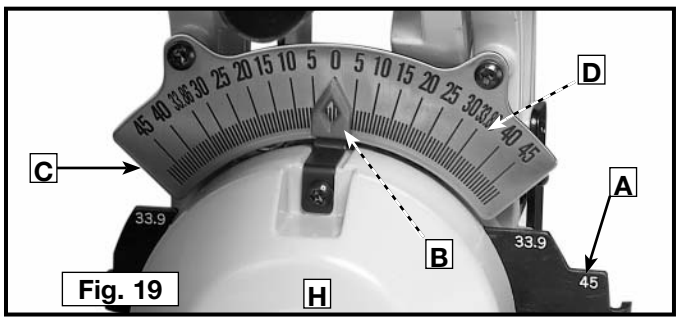


Fig. 19

IMPORTANT: Move the sliding fence to the left or right to provide clearance for the blade and guard. The DEGREE of tilt determines how far to move the sliding fence. Refer to the section "ADJUSTING SLIDING FENCE."

1. The cuttinghead of your compound miter saw can be tilted to cut any bevel angle from a 90° straight cut-off to a 48° bevel angle left or right. Raise bevel lock lever (A) Fig. 18.
2. Positive stops (A) Fig. 19 are provided to rapidly position the saw blade at 0°, 33.9° and 45°. Refer to the section of this manual titled **"SELECTING 0°, 33.9°, AND 45° BEVEL POSITIVE STOPS."** The bevel angle of the cuttinghead is determined by the position of the pointer (B) on the scale (C).
3. In addition, a marked indicator (D) is provided on the bevel scale (33.9°) for cutting crown moulding. Refer to the **"CUTTING CROWN MOULDING"** section of this manual.

⚠WARNING Take care not to pinch the cord when tilting the cuttinghead.

SELECTING 0°, 33.9°, AND 45° BEVEL POSITIVE STOPS

The bevel setting feature utilizes a sliding plate (A) Fig. 20, pin (B), and bushing (C) design that is used to select the bevel angle. The position of the pin (B) and the sliding plate (A) determine the bevel angle.

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Position the bevel detente plate so that the desired angle (A) Fig. 20 is exposed immediately to the left or right of the housing (H) Fig. 21.
2. Lift the bevel lock lever (A) Fig. 18 to disengage the bevel lock.
3. Tilt the cuttinghead left or right as desired until it stops on plate (A) Fig. 20. **NOTE:** Fig. 21 illustrates the sliding plate positioned for 33.9° left or right.
4. Lower the the bevel lock lever (A) Fig. 18 to engage the bevel lock.
   NOTE: To perform a bevel cut of more than 45°, pull the bevel pin (B) Fig. 20 out to bypass the bevel detent plate. 48° is possible.

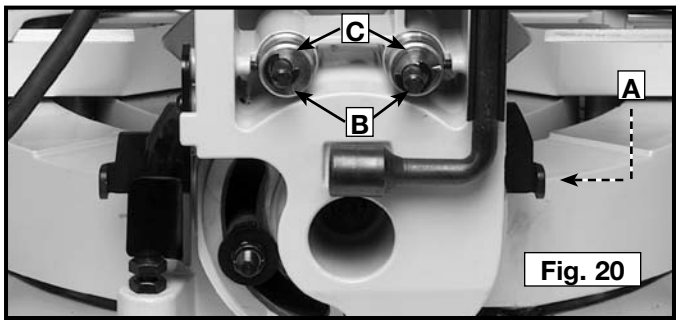


Fig. 20

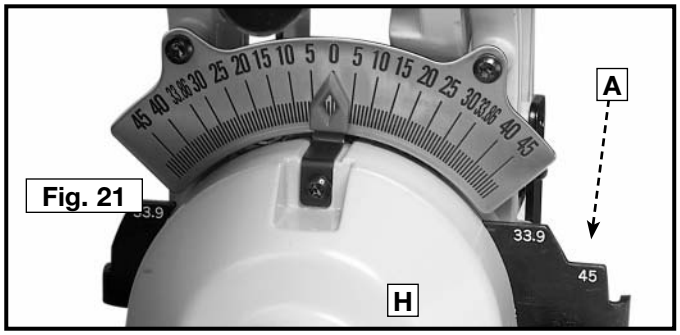


Fig. 21

⚠WARNING Make sure that the fence is clear of the guard and blade before operating the saw.

ADJUSTING 0°, 33.9°, AND 45° BEVEL POSITIVE STOPS

The bevel adjustment utilizes a sliding plate (A) Fig. 20, pin (B), and bushing (C) design feature that can be adjusted to fine-adjust the bevel angle. The position of the pin within the bushing is adjustable and, when set, determines the bevel angle. To adjust, loosen the pin locking screws, move to desired location, and tighten securely.

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Position the bevel detent plate so that the desired angle (A) Fig. 23 is exposed.
2. Lift the bevel lock lever (A) Fig. 22 to disengage the bevel lock.
3. Tilt the cuttinghead left until it stops on the plate (A) Fig. 23.
4. To adjust, loosen the pin locking set screws (D) Fig. 23 (shown from the rear, the screw is located on the side of the trunnion between two metal ribs) and rotate the bushing (C) until the red pointer (B) Fig. 19 is at the proper angle. Rotate the bushing clockwise to decrease and counterclockwise to increase the bevel angle. Tighten screws (D) securely.

NOTE: The right bushing adjustment is opposite the left.

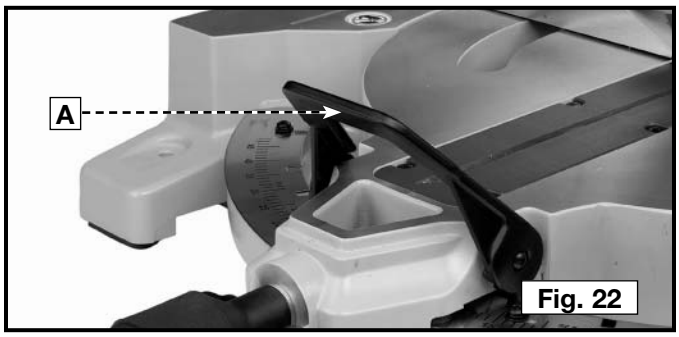


Fig. 22

⚠WARNING Make sure that the fence is clear of the guard and blade before operating the saw.

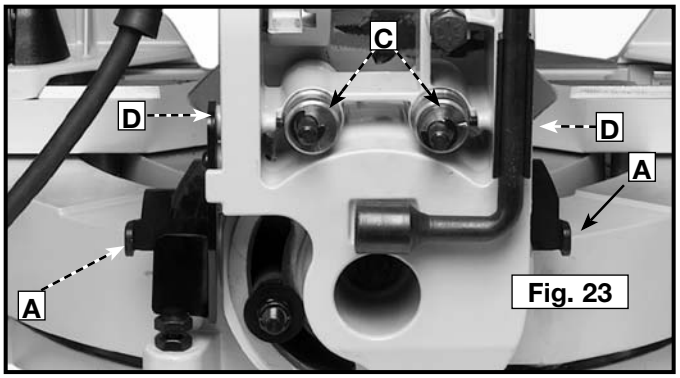


Fig. 23

ADJUSTING THE BEVEL MOVEMENT

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

The bevel-locking force has been set at the factory. After a period of time, you may need to adjust the locking mechanism. To adjust:

1. Unlock the bevel locking handle (A) Fig. 22.
2. Tighten the pivot head nut (C) Fig. 25 such that the force to bevel the cutting head by pushing on the switch handle is 6-10 pounds.

To check the locking action of the bevel lock handle:

1. Lock the bevel locking handle (A) Fig. 22.
2. Check the force to bevel the cutting head by pushing on the handle with the cutting head in the full upright position. With the bevel locking handle (A) Fig. 22 down, this force should be 33-35 pounds.
3. If the bevel action needs adjusting, unlock the bevel handle (A) Fig. 22 and loosen or tighten the nut (A) Fig. 25 depending on whether you want the bevel action tighter or looser.
4. Close the bevel handle and check the force it takes to move the head, as explained in Step 2.
5. Repeat if necessary.

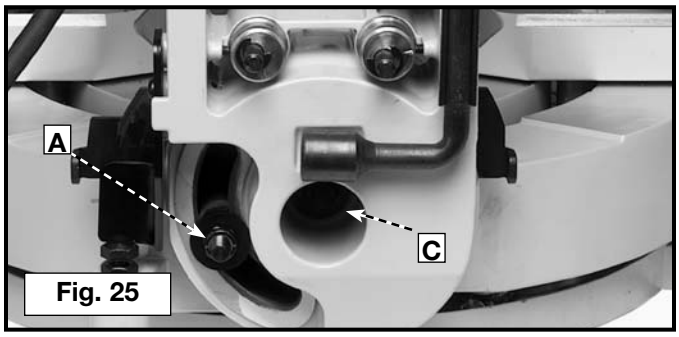


Fig. 25

LASER USE AND ADJUSTMENTS

The TwinLaser™ laser units are mounted in a housing that is fitted into the upper blade guard of the miter saw (Fig. A). The lasers project a beam of light downward, along both sides and parallel to the saw blade. This beam of light produces a line-of-cut indicator (a red outline of where the saw blade will cut) on the workpiece.

ADJUSTING THE TwinLaser™ LINES

Each of the laser lines have been aligned parallel to the blade at the factory and should not need any adjustment prior to use. However, left-to-right adjustment to the lines may be necessary if you change to a thicker or thinner kerf blade. For information on changing your blade, refer to the "Maintenance: Changing the Blade" section of this manual. To adjust the laser lines to the edge of the cut, follow the instructions below.

HOW THE LASERS WORK

The laser units are mounted in a housing that is fitted into the upper blade guard of the miter saw (Fig. A). The lasers project a beam of light downward, along both sides and parallel to the saw blade. This beam of light produces a line-of-cut indicator (a red outline of where the saw blade will cut) on the workpiece. The laser units are aligned to the original equipment blade at the factory and are secured in place. A test cut has been made with each saw to verify laser setup. If your saw becomes misaligned or you desire additional precision, this guide is intended to assist you in fine tuning your laser miter saw.

HOW TO CHECK LASER ALIGNMENT

Make sure the saw is set to 0 degrees miter and bevel and clamp a 2"x 6" board on the saw. Create a partial/test cut in the workpiece (Fig. C). Turn the laser “ON/OFF” switch (Fig. B) to the “ON” position. Leave the workpiece clamped in place for the remainder of the adjustment.

⚠DANGER **Observe laser label (L) Fig. B.**

⚠WARNING Place a padlock Fig. B (with $^{3}/_{16}$" shackle) through hole in trigger switch and lock to prevent accidental motor startup. This padlock **MUST** remain in place during the adjustment procedure.

The laser lines are properly positioned when the beams of light fall on the edge of the cut created by the blade (Fig. D).

TO CHECK FOR ROTATIONAL ALIGNMENT

The rotation of the lines is set parallel at the factory and permanently secured. There is no user adjustment for rotational alignment and you should never twist the brass hex nut in Fig. E.

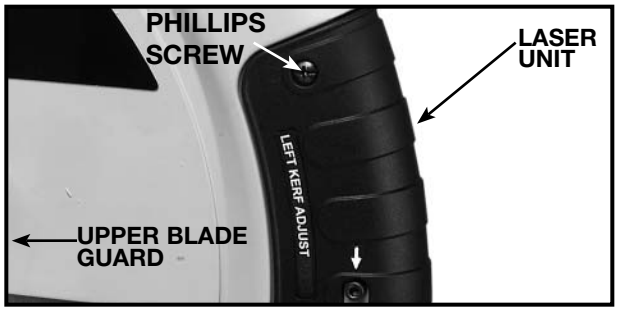


Fig. A

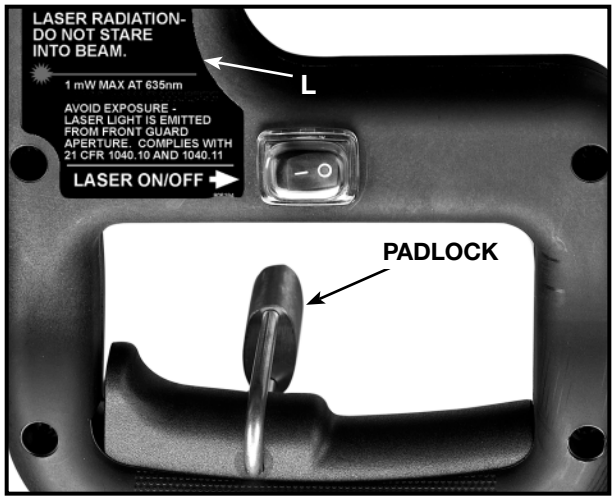


Fig. B

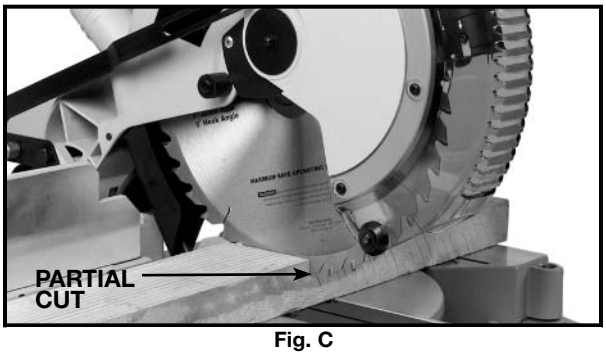


Fig. C

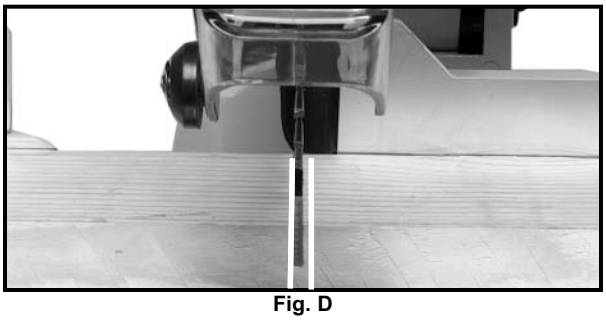


Fig. D

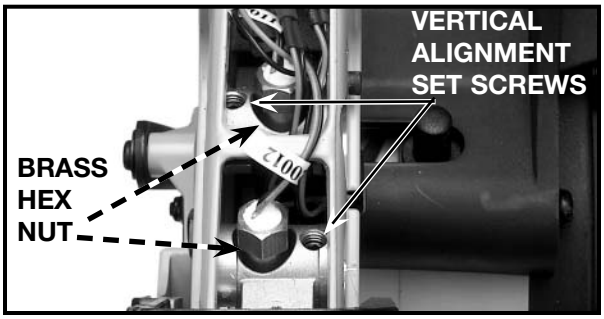


Fig. E

CHECK FOR VERTICAL ALIGNMENT

1. The vertical alignment is set correctly when the lines do not move horizontally (sideways) as the saw head is raised and lowered. If vertical alignment is correct jump to **"TO SET LEFT AND RIGHT KERF ADJUSTMENT"**.
2. If the vertical alignment needs to be adjusted, begin by backing the left and right kerf adjustment screws one half turn clockwise. Remove the laser unit cover by removing the phillips screw on either side of the cover. (Fig. A).
3. Use the 1/8" hex wrench to turn the left or right vertical alignment set screws. If as the saw head goes from a raised to a lowered position and the laser line moves horizontally away from the blade, turn vertical alignment set screw clockwise to correct. If the laser line moves horizontally towards the blade, turn vertical alignment set screw counter-clockwise to correct. (Fig. F)
4. Reinstall cover removed in **step 1,** and continue to **"TO SET LEFT AND RIGHT KERF ADJUSTMENT"**.

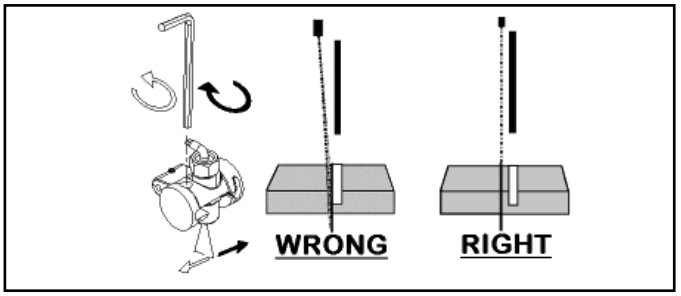


Fig. F

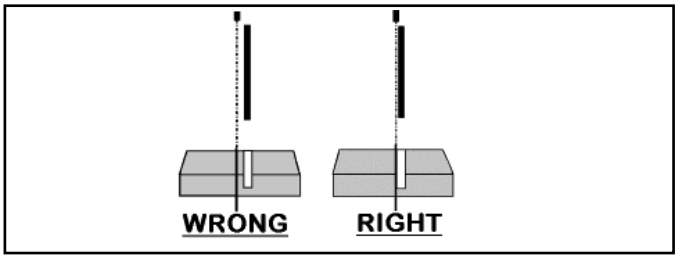


Fig. G

TO SET LEFT and RIGHT KERF ADJUSTMENT

1. Use the 1/8" hex wrench to turn the left or right kerf adjustment screws and set the laser lines to either side of the test cut (Fig. G). To adjust the left line turn the left kerf adjustment screw counter-clockwise to move the line toward the blade and clockwise to move the line away from the blade. To adjust the right line turn the right kerf adjustment screw counter-clockwise to move the line toward the blade and CW to move the line away from the blade. (Fig. H)

⚠DANGER ⚠ **Observe laser label (L) Fig. H.**

2. Remove the padlock and use normally.

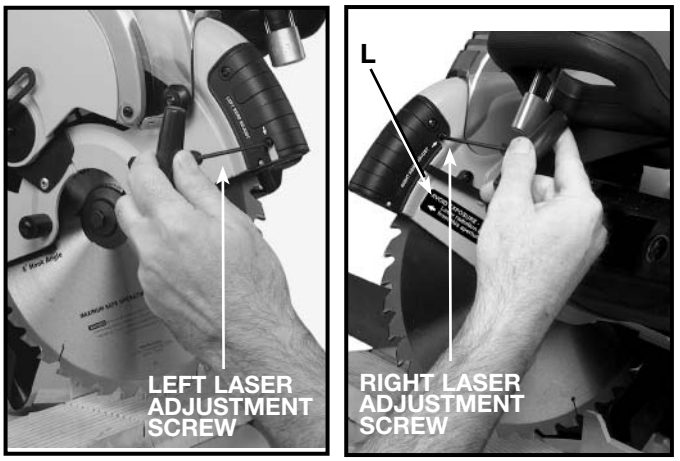


Fig. H

TwinLaser™ MAINTENANCE

For best laser performance, perform the following maintenance regularly:

1. **⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.**
2. Carefully clean sawdust from each laser lens with a cotton swab Fig. J. Do not use solvents of any kind since they may damage the lens. Avoid touching sharp points of saw blade with your hands or fingers. Dust build-up can block the laser and prevent it from accurately indicating the line of cut.
3. Remove blade from saw and clean pitch build-up from blade Fig. K Pitch build-up can block the laser and prevent it from accurately indicating the line of cut.

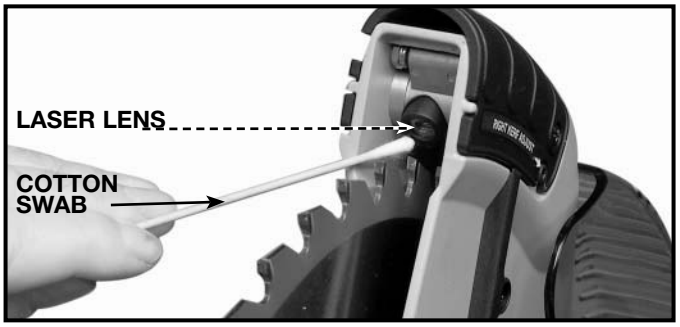


Fig. J

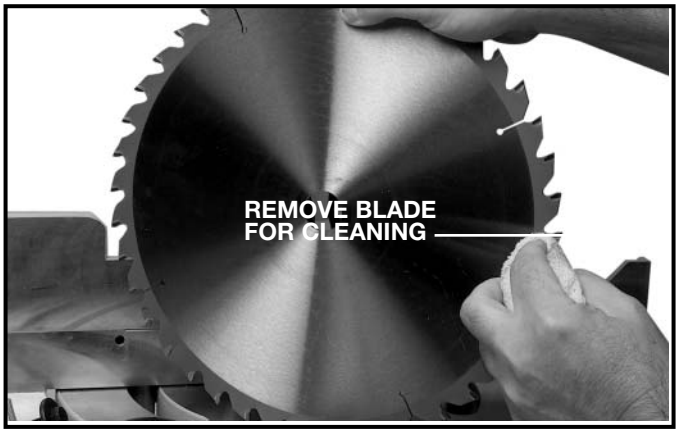


Fig. K

ADJUSTING SLIDING FIT BETWEEN CUTTINGHEAD ARM AND TRUNNION

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

After a period of time, an adjustment of the sliding fit between the cuttinghead arm (B) Fig. 27, and the trunnion (C) may be necessary. To adjust, tighten or loosen the nut (D). Correct adjustment provides a snug sliding fit between these two parts. This adjustment should not be so tight that it restricts the sliding movement of the cuttinghead arm (B) or so loose that it affects the accuracy of the saw cut.

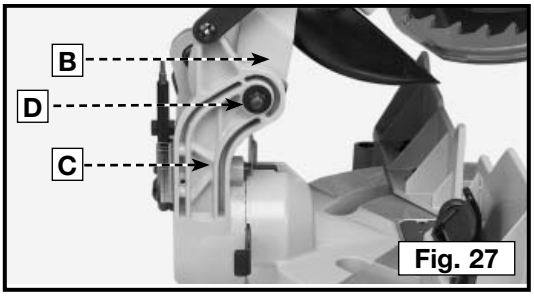


Fig. 27

⚠WARNING Overtightening can result in preventing the cutting head from returning to its maximum raised position, leaving the blade exposed and possibly resulting in personal injury.

ADJUSTING THE LOWER BLADE GUARD

⚠WARNING DISCONNECT THE MACHINE FROM THE POWER SOURCE.

This machine incorporates a blade guard (A) Fig. 28 to cover the rear section of the blade. After an extended period of use, the movable lower blade guard may not operate smoothly when the cuttinghead is lowered. This can be corrected by adjusting nut (B) until the lower blade guard moves freely.

⚠WARNING Overtightening the nut could impair guard movement.

NOTE: This unit has been designed with an articulating rear guard. Before contacting the workpiece, the rear guard will rotate upward to expose more of the blade as the cuttinghead is lowered.

⚠WARNING Do not remove any of the blade guards.

⚠WARNING Make sure that all guards are in place and functioning properly before operating the saw.

⚠WARNING Make sure that the fences are clear of the guard and blade before operating the saw.

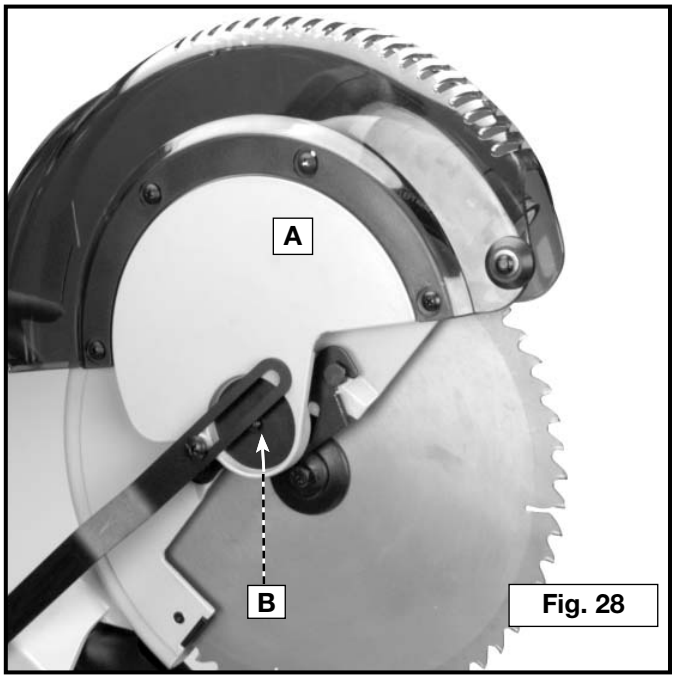


Fig. 28

AUTOMATIC ELECTRIC BRAKE

Your saw is equipped with an automatic electric blade brake which stops the saw blade within 5 seconds of trigger release. This is not adjustable. On occasion, there may be a delay after trigger release to brake engagement. On rare occasions, the brake may not engage at all and the blade will coast to a stop. If a delay or "skipping" occurs, turn the saw on and off 4 or 5 times. If the condition persists, have the tool serviced by an authorized Delta Machinery service center. Always be sure the blade has stopped before removing it from the kerf. The brake is not a substitute for guards or for ensuring your own safety by giving the saw your complete attention.

MACHINE USE

GENERAL CUTTING OPERATIONS

Your machine has the following capacities:

Baseboards	Vertical at 6” (152 mm), Flat at 9¼” (235 mm)
Crown	Vertical and Flat at 7¾” (197 mm)
45° Bevel	Up to 2”x10” (51 mm x 254 mm) lumber
90° Crosscut	Max. height is 4”x6” (102 mm x 52 mm) , Max. width is 2”X10” (51 mm x 254 mm)
45° Miter	Max. height is 4”x4” (102 mm x 102 mm), Max. width is 2”X6” (51 mm x 152 mm)
Fence size	Right and Left sides are 5¼” x 11⅛” (133 mm X 283 mm)

TYPICAL OPERATIONS AND HELPFUL HINTS

⚠WARNING **IF THE SIZE OF THE WORKPIECE CAUSES YOUR HAND TO BE WITHIN SIX INCHES OF THE SAW BLADE, USE A CLAMP TO SECURE THE WORKPIECE.**

1. Before cutting, make certain that the cutting arm and table area are at their correct settings and firmly locked in place.
2. Before cutting, determine that the workpiece is the right size for the saw and the guard will operate properly.
3. Place the workpiece on the table and hold or clamp it firmly against the fence.
4. For best results, cut at a slow, even cutting rate.
5. Never attempt freehand cutting (cutting a workpiece that is not held firmly against the fence and table).

NEVER release the trigger during a cut. Always wait until the cut is complete. The saw head may drop slightly towards the workpiece causing possible damage and personal injury.

NOTE: If a partial cut must be made, bring the saw head back to the up position before releasing trigger.

AUXILIARY WOOD FENCE

⚠WARNING When performing multiple or repetitive cut-off operations that result in small cut-off pieces (one inch or less), the saw blade can catch the cut-off pieces and project them out of the machine or into the blade guard and housing, possibly causing damage and/or injury. In order to limit the possibility of personal injury or blade guard damage keep the blade down until stopped and then mount an auxiliary wood fence to your saw.

Holes are provided in the fence to attach an auxiliary fence (A) and (B) (Fig. 29). This auxiliary fence is constructed of straight wood approximately 1/2” thick. Both sides A and B should be approximately 5.25" high by 11.5 inches long.

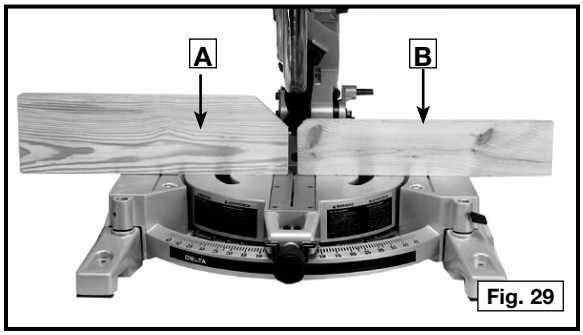


Fig. 29

NOTE: The auxiliary fence (A) is used **only** with the saw blade in the 0° bevel position (90°) to the table. The auxiliary fence must be removed for all bevel cuts (blade tilted).

⚠WARNING **MAKE SURE THAT THE FENCES ARE CLEAR OF THE GUARD AND BLADE BEFORE OPERATING SAW.**

AUXILIARY FENCE SPACER

This machine is supplied with new design features that increase cutting capacity. The unit can crosscut 4" x 6" dimensional lumber at 0° miter and 0° bevel, miter cut 4" x 4" lumber left and right at 45°, and bevel cut 2”x8” lumber at 45°. To right bevel, the user must provide a spacer (A) Fig. 29A and remove the right fence.

NOTE: The spacer can be made from a 2" x 4" or any other 2" material as shown in Fig. 29A. The spacer must be used when cutoff pieces extend far enough to the right to block the travel of the cutterhead and are more than 4” wide and more than 1” tall. Spacer is not needed for left bevel cuts.

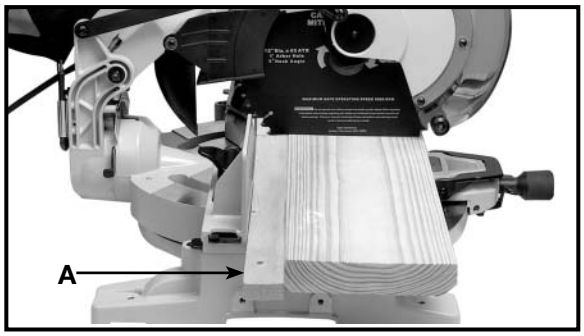


Fig. 29A

CUTTING LARGE MATERIAL

Occasionally you will encounter a piece of wood a little too large to fit beneath the blade guard. If this occurs, simply place your right thumb on the upper side of the guard and roll the guard up just enough to clear the workpiece. Avoid doing this as much as possible, but if need be, the saw will operate properly and make the bigger cut.

⚠WARNING **NEVER TIE, TAPE, OR OTHERWISE HOLD THE GUARD OPEN WHEN OPERATING THIS SAW**.

CUTTING ALUMINUM

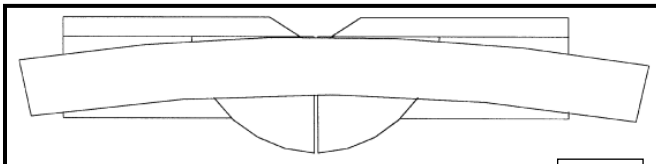
⚠WARNING **TO REDUCE THE RISK OF INJURY, USE THE PROPER BLADE WHEN CUTTING THIS TYPE OF MATERIAL.**

Aluminum extrusions (aluminum screens and storm windows) can easily be cut with your miter saw. When cutting aluminum extrusions, or other sections that can be cut with a saw blade and are within the capacity of the machine, position the material so that it is secured on the table and is against the fence. Also, position the material so you will be cutting the thinnest cross section. Be sure to apply a stick wax cutting lubricant to the blade before cutting any aluminum stock. The stick wax provides proper lubrication and keeps chips from adhering to the blade.

⚠WARNING **NEVER APPLY LUBRICANT TO THE BLADE WHILE THE SAW IS RUNNING.**

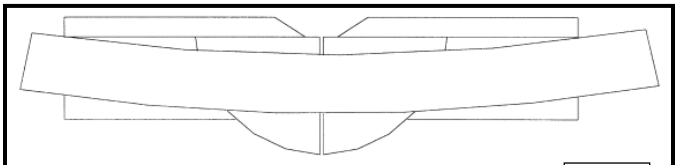
CUTTING BOWED MATERIAL

1. Check the workpiece. If it is bowed, position the workpiece on the table as shown in Fig. 33.
2. When the workpiece is positioned the wrong way (Fig. 34), it will pinch the blade near the completion of the cut.



CORRECT

Fig. 33



INCORRECT

Fig. 34

WORK SUPPORT EXTENSIONS

For support when cutting long pieces, construct a work support extension. Fig. 35 illustrates the miter saw mounted on two standard 2 x 4's (A). Fasten the four mounting legs (two of which are shown at (B) Fig. 35 to the 2 x 4's, using four screws (not supplied) through the four holes in the mounting legs. The length of the 2 x 4's (A) can vary, depending on the workpiece.

NOTE: Make sure that the top of the support 2 x 4's (C) are level with the miter saw table.

This is critical because the distance from the top of the 2 x 4's (A) to the miter saw table varies from saw to saw. In most cases, standard 2 x 4's (C) can used. If these are too high, cut them to fit. If the 2 x 4's are too low, use 2 x 6's. If these are high, cut them to the correct height.

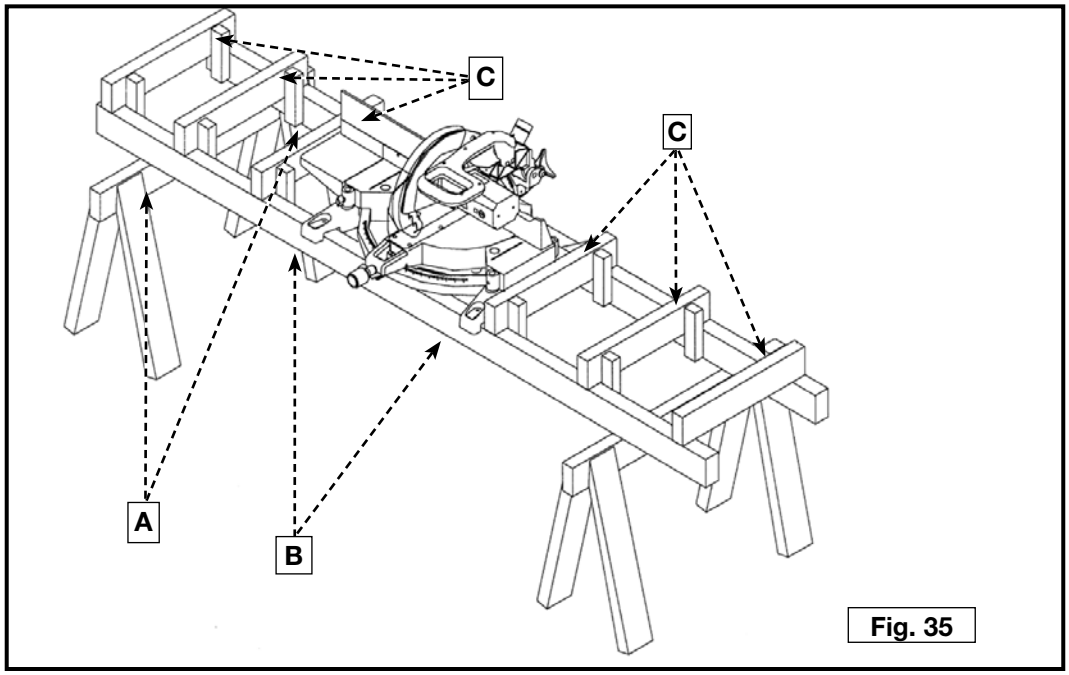


Fig. 35

CUTTING CROWN MOULDING VERTICALLY (USING BUILT-IN STOPS)

Crown moulding stops have been built in to the base to aid in holding the workpiece in position while cutting. This new design feature allows cutting crown moulding in either the flat or nested position and utilizes a stop and screw feature that can be quickly adjusted to accommodate several widths of crown moulding. The position of the stops can be adjusted by two methods. To adjust, turn knob (A) Fig. M1 until stop (B) is in the proper position to mount the crown moulding at the selected angle, or, squeeze the ears and depress the stop (A) Fig. M2 to disengage the stop (B) Fig. M1 from the screw. Then move the stop to the desired location and raise the stop until the ears snap in place (B) Fig. M3. Then if necessary turn knob(s) (A) Fig. M3 to fine adjust the stop. A recessed slot (D) Fig. M2 is provided for the user to add pencil markings to establish various quick reference stop positions.

⚠WARNING A NEW FEATURE FOR THIS TOOL IS CROWN MOULDING STOPS BUILT INTO THE BASE. DELTA DOES NOT CONSIDER THE CROWN MOULDING STOPS TO BE WORK CLAMPS AND THEY ARE NOT TO BE USED IN THIS MANNER.

⚠WARNING MAKE SURE THAT THE FENCES ARE CLEAR OF THE GUARD AND BLADE BEFORE OPERATING THE SAW.

⚠WARNING WHEN CUTTING CROWN MOULDING USING THE CROWN MOULDING STOPS, DO NOT BEVEL THE CUT. THE CROWN MOULDING STOP FEATURE IS DESIGNED TO MAKE THE CUT WITH THE CUTTINGHEAD AT 90° AND WITH THE TABLE ROTATED 45°.

⚠WARNING MAKE SURE THAT THE FENCES ARE CLEAR OF THE GUARD AND BLADE BEFORE USING SAW.

Fig. M1

Fig. M2

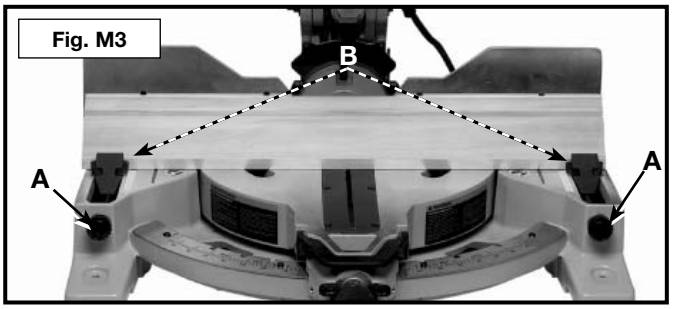


Fig. M3

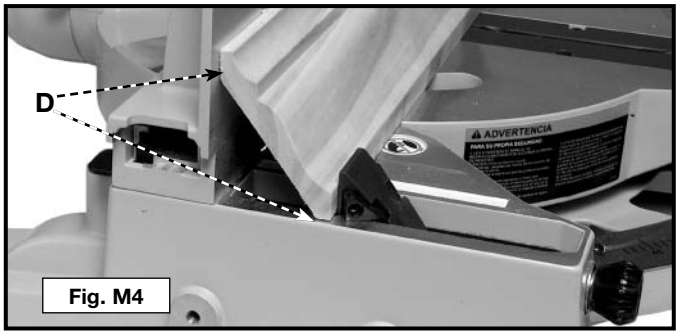


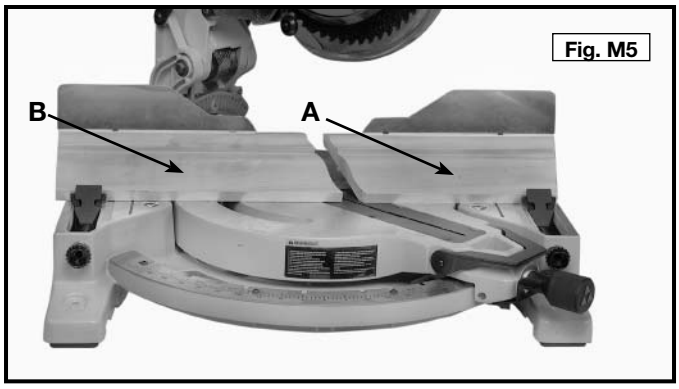
Fig. M4

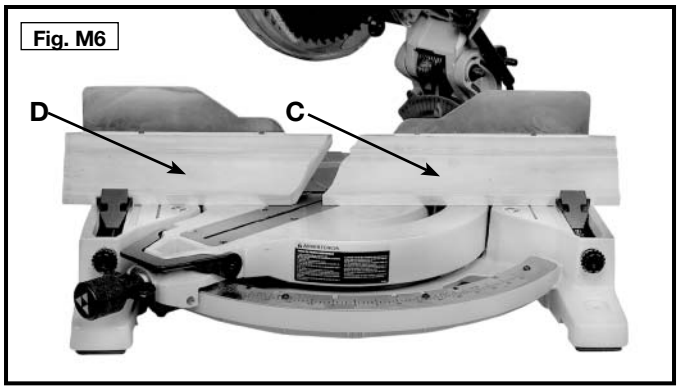
When cutting crown moulding using the crown moulding stops, do not bevel the cut. The crown moulding stop feature is designed to make the cut with the cuttinghead at 90° and with the table rotated 45°.

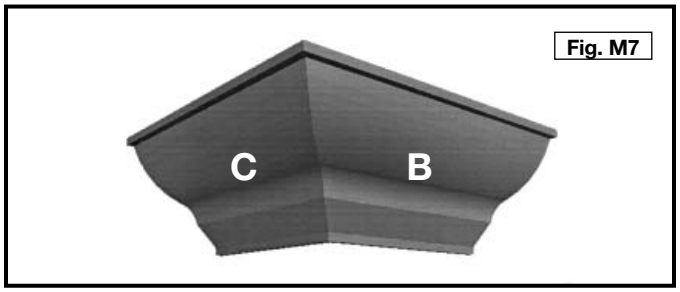
1. Move the table to the 45° right miter position and lock the table in position. NOTE: A positive stop is provided to find this angle quickly.
2. Place the crown moulding in the "nested" position between the fence and table with the ceiling edge on the base and the wall edge against on the fence, as shown in Fig. M4. Make sure the flats of the molding, (D) Fig. M4, are even with the fence and the table as shown. Make the cut.

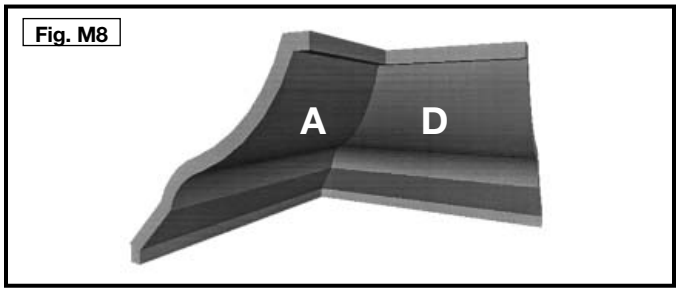
   NOTE: The piece of crown moulding used for the inside corner will always be on the right side of the blade, as shown at (A) Fig. M5. The piece of crown moulding used for the outside corner will always be on the left side of the blade, as shown at (B) Fig. M5.
3. To make the matching halves of the inside and outside corners, rotate the table to the 45° left miter position.

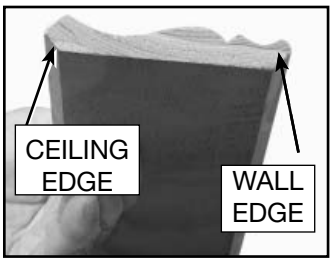
   NOTE: A positive stop is provided to find this angle quickly.
4. Place the crown moulding on the table as described in step 2 and make the cut. In this case, the piece of crown moulding used for the outside corner will always be on the right side of the blade, as shown at (C) Fig. M6. The piece of crown moulding used for the inside corner will always be on the left side of the blade, as shown at (D) Fig. M6.
5. Fig. M7 illustrates the two outside corner pieces; the piece cut at (B) Fig. M5, and the piece cut at (C) Fig. M6.
6. Fig. M8 illustrates the two inside corner pieces; the piece cut at (D) Fig. M6, and the piece cut at (A) Fig. M5.











CUTTING CROWN MOULDING IN HORIZONTAL POSITION

One of the many features of the saw is the ease of cutting crown moulding. The following is an example of cutting both inside and outside corners on **52°/38°** wall angle crown moulding.

1. Move the table to the 31.62° right miter position and lock the table in position. **NOTE:** A positive stop is provided to find this angle quickly.
2. Tilt the saw blade to the 33.9° left bevel position and tighten bevel lock handle. **NOTE:** A triangle indicator is provided on the bevel scale to find this angle quickly.
3. Place the crown moulding on the table with the **CEILING EDGE** of the moulding against the fence, and make the cut, as shown in Fig. C1.

NOTE: The piece of crown moulding used for the outside corner will always be on the right hand side of the blade, as shown at (A) Fig. C1. The piece of crown moulding used for the inside corner will always be on the left hand side of the blade, as shown at (B) Fig. C1.

4. To make the matching halves of the inside and outside corners, rotate the table to the 31.62° left miter position.

NOTE: A positive stop is provided to find this angle quickly. The saw blade is already tilted to the 33.9° left bevel position from the previous cut.

5. Place the crown moulding on the table with the **WALL EDGE** of the crown moulding against the fence and make the cut. Again, the piece of crown moulding used for the outside corner will always be on the right side of the blade, as shown at (C) Fig. C2. The piece of crown moulding used for the inside corner will always be on the left side of the blade, as shown at (D) Fig. C2.
6. Fig. C3 illustrates the two outside corner pieces; (A) being the piece cut at (A) Fig. C1 and (C) being the piece cut at (C) Fig. C2.
7. Fig. C4 illustrates the two inside corner pieces; (B) being the piece cut at (B) Fig. C1, and (D) being the piece cut at (D) Fig. C2.

45-45 CROWN MOULDING

NOTE: If you are cutting crown moulding that is **45°-45°**, follow the same procedure above, with the exception that the bevel position will always be at 30° and the miter position will be 35-1/4° to the right or left.

OTHER ANGLES

NOTE: The above instructions are assuming the angle between the walls is 90°. If you need help cutting crown moulding set at angles other than 90°, see the instruction sheet **"CUTTING CROWN MOULDING"** on the Delta Machinery web site at www.deltamachinery.com.

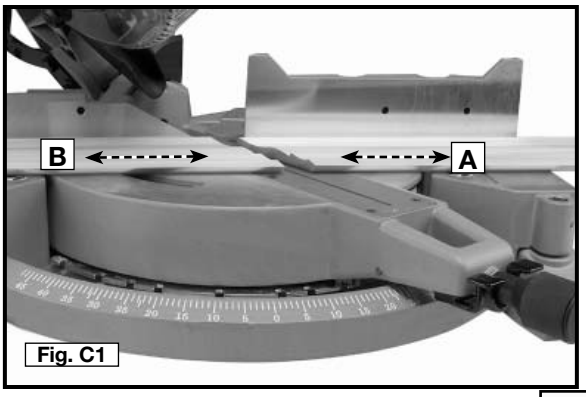


Fig. C1

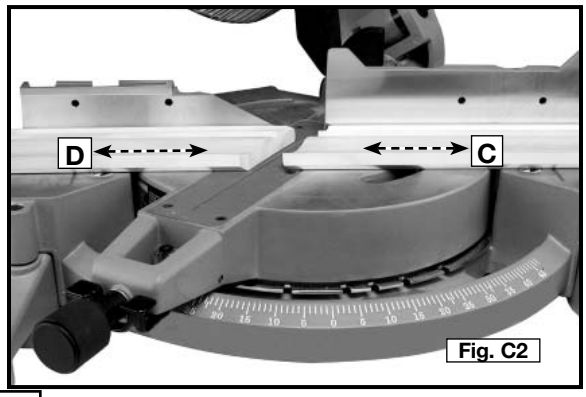


Fig. C2

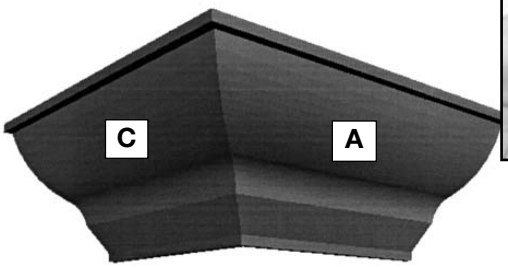
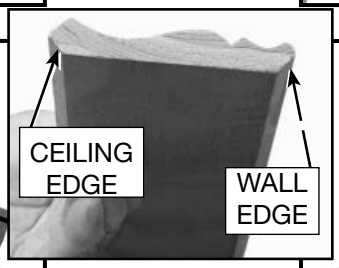


Fig. C3



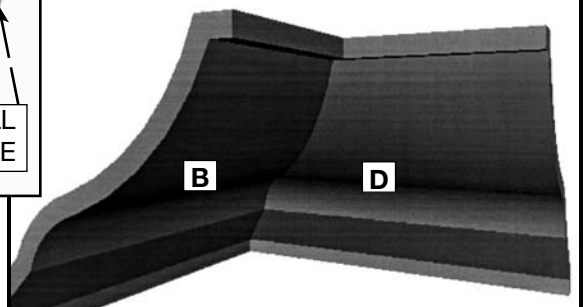


Fig. C4

TROUBLESHOOTING

For assistance with your machine, visit our website at **www.deltamachinery.com** for a list of service centers or call the DELTA Machinery help line at 1-800-223-7278 (In Canada call 1-800-463-3582).

MAINTENANCE

CHANGING THE BLADE

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

⚠CAUTION NEVER DEPRESS THE SPINDLE LOCK BUTTON WHILE THE BLADE IS UNDER POWER OR COASTING. DO NOT CUT FERROUS METAL (CONTAINING IRON OR STEEL) OR MASONRY OR FIBER CEMENT PRODUCT WITH THIS MITER SAW.

To remove the blade:

1. Unplug the saw.
2. Raise the arm to the upper position and raise the lower guard (A) Fig. 36 as far as possible.
3. Loosen, but do not remove guard bracket screw (B) until the bracket (C) can be raised far enough to access the blade screw (D). Lower guard will remain raised due to the position of the guard bracket screw, as shown in Fig. 37.
4. Depress the spindle lock button (F) Fig. 37A while carefully rotating the saw blade by hand until the lock engages.
5. Keeping the button depressed, use the wrench provided to loosen the blade screw (D). (Turn clockwise, left-hand threads)
6. Remove the blade screw (D), outer clamp washer (E), and blade. The 1" (25.4mm) blade adapter, if used, and the inner clamp washer, may be left on the spindle.

NOTE: For blades with a blade hole of 5/8" (15.88mm), the 1" (25.4mm) blade adapter is not used.

To install the blade:

1. Unplug the saw.
2. With the arm raised and the lower guard held open, place the blade on the spindle, onto the blade adapter (if using a blade with a 1" (25.4mm) diameter blade hole) and against the inner clamp washer. Make sure the teeth at the bottom of the blade are pointing toward the back of the saw.
3. Assemble the outer clamp washer onto the spindle.
4. Install the blade screw and, engaging the spindle lock (F) Fig. 37A, tighten the screw firmly with wrench provided. (Turn counterclockwise, left-hand threads).

NOTE: When using blades with a 5/8" (15.88mm) diameter blade hole, the blade adapter will not be used and should be stored in a safe place for future use.

5. Return the guard bracket to its original position and firmly tighten the guard bracket screw to hold bracket in place.

⚠WARNING THE GUARD BRACKET MUST BE RETURNED TO ITS ORIGINAL POSITION AND THE SCREW TIGHTENED BEFORE ACTIVATING THE SAW. FAILURE TO DO SO MAY ALLOW THE GUARD TO CONTACT THE SPINNING SAW BLADE RESULTING IN DAMAGE TO THE SAW AND SEVERE PERSONAL INJURY.

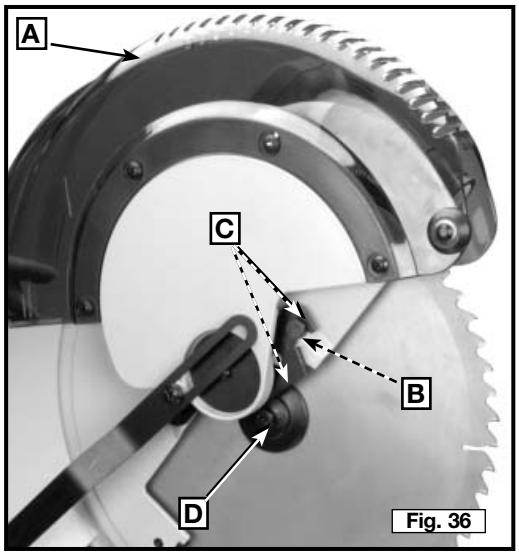


Fig. 36

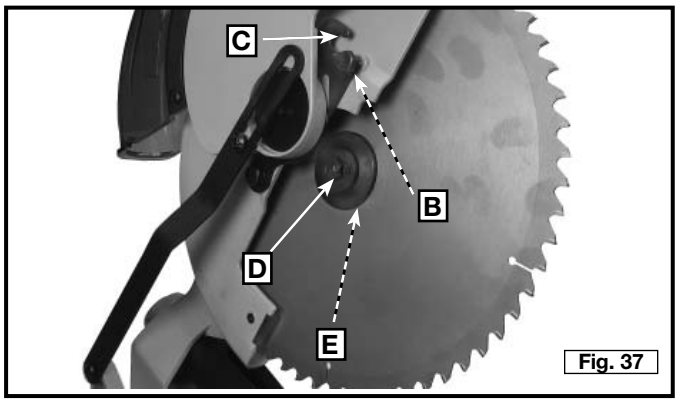


Fig. 37

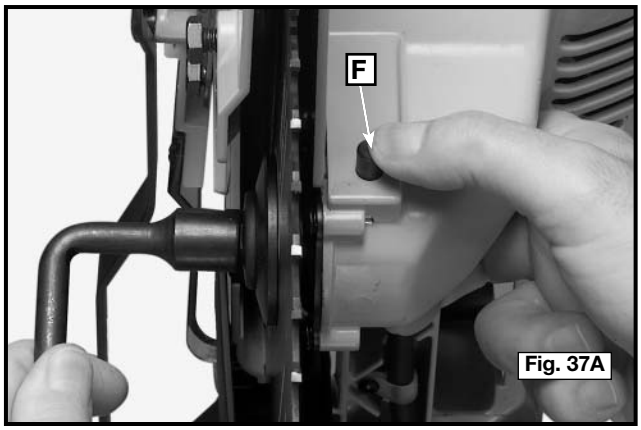


Fig. 37A

KEEP MACHINE CLEAN

Periodically blow out all air passages with dry compressed air. All plastic parts should be cleaned with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

⚠WARNING Wear ANSI Z87.1 safety glasses while using compressed air.

FAILURE TO START

Should your machine fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

LUBRICATION

Apply household floor paste wax to the machine table and extension table or other work surface weekly.

BRUSH INSPECTION AND REPLACEMENT

⚠WARNING DISCONNECT MACHINE FROM POWER SOURCE.

Brush life varies, depending on the load on the motor. Check the brushes after the first 50 hours, or after a new set of brushes has been installed.

After the first check, examine them about every 10 hours.
The brush holders (A) Fig. 38 are located on the motor housing opposite each other. Remove the brush holder cap (A) Figs. 38 and 39, and remove the brushes for inspection. When the carbon (B) Fig. 39 on either brush is worn to 3/16" or less, or if either spring or shunt wire (C) is burned or damaged, replace both brushes. If the brushes are found serviceable after removing, reinstall them in the same position.

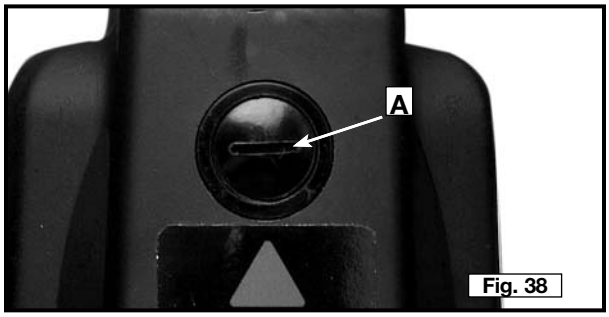


Fig. 38

Fig. 39

SERVICE

REPLACEMENT PARTS

Use only identical replacement parts. For a parts list or to order parts, visit our website at **servicenet.deltamachinery.com.** You can also order parts from your nearest factory-owned branch, or by calling our Customer Care Center at 1-800-223-7278 to receive personalized support from highly-trained technicians.

SERVICE AND REPAIRS

All quality tools will eventually require servicing and/or replacement of parts. For information about Delta Machinery, its factory-owned branches, or an Authorized Warranty Service Center, visit our website at **www.deltamachinery.com** or call our Customer Care Center at 1-800-223-7278. All repairs made by our service centers are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by others.

You can also write to us for information at Delta Machinery, 4825 Highway 45 North, Jackson, Tennessee 38305 - Attention: Product Service. Be sure to include all of the information shown on the nameplate of your tool (model number, type, serial number, etc.)

ACCESSORIES

A complete line of accessories is available from your Delta Supplier, Porter-Cable • Delta Factory Service Centers, and Delta Authorized Service Stations. Please visit our Web Site **www.deltamachinery.com** for a catalog or for the name of your nearest supplier.

Accessories made especially for the 36-422L Miter Saw include:

*** 36-300 Accessory Table** *** 36-218 Work Clamp**

⚠WARNING Since accessories other than those offered by Delta have not been tested with this product, use of such accessories could be hazardous. For safest operation, only Delta recommended accessories should be used with this product.

WARRANTY

To register your tool for warranty service visit our website at www.deltamachinery.com.

Two Year Limited New Product Warranty

Delta will repair or replace, at its expense and at its option, any new Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to a Delta factory service center or authorized service station with proof of purchase of the product within two years and provides Delta with reasonable opportunity to verify the alleged defect by inspection. For all refurbished Delta product, the warranty period is 180 days. Delta may require that electric motors be returned prepaid to a motor manufacturer's authorized station for inspection and repair or replacement. Delta will not be responsible for any asserted defect which has resulted from normal wear, misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta be liable for incidental or consequential damages resulting from defective products. This warranty is Delta's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.

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